

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	124	((short\$3 or "near" or nearby or neighbor\$4 or adjacent or adjoin\$3 or close) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4) and ((delay or time or timing or skew or slack) near5 (minim\$8 or shortest or smallest or least)) and ((relax\$6 or over or loose\$2) near10 (delay or time or timing or skew or slack))).clm.	US-PGPUB	OR	ON	2006/08/21 10:44
L2	0	716/1-18.ccls. and 1	US-PGPUB	OR	ON	2006/08/21 10:44
L3	1	((((maximum or most or largest or biggest or worst) near10 (timing or delay or slack or skew)) and ((long or longer or global\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4)) and ((relax\$6 or over or loose\$2) near10 (delay or time or timing or skew or slack))).clm.	US-PGPUB	OR	ON	2006/08/21 10:45
L4	37	((((maximum or most or largest or biggest or worst) near10 (timing or delay or slack or skew)) and ((long or longer or global\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4))).clm.	US-PGPUB	OR	ON	2006/08/21 10:45
L5	1140	((short\$3 or "near" or nearby or neighbor\$4 or adjacent or adjoin\$3 or close) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4) and ((delay or time or timing or skew or slack) near5 (minim\$8 or shortest or smallest or least))).clm.	US-PGPUB	OR	ON	2006/08/21 10:45
L6	3	4 and 5	US-PGPUB	OR	ON	2006/08/21 10:46

Date Searched: 8/21/2006

Databases Searched: USPAT, USPGPUB

Plurals: ON

Terms Searched:

L1 (short\$3 or "near" or nearby or neighbor\$4 or adjacent or adjoin\$3 or close) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4)  
L2 (delay or time or timing or skew or slack) near5 (minimum\$8 or shortest or smallest or least)  
L3 716/1-18.ccls.  
L4 1 and 2 and 3  
L5 (long\$3 or far) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4)  
L6 (delay or time or timing or skew or slack) near5 (maximum\$8 or most or longest or biggest)  
L7 4 and 5 and 6  
L8 (weight\$5 or cost or fitness or metric) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4)  
L9 7 and 8  
L10 (relax\$6 or over or loose\$2) near10 (delay or time or timing or skew or slack)  
L11 9 and 10 and @pd>"20060527"  
Results: 1 hits

L12 (minimum or least or best or smallest) same ((timing or delay or slack or skew)) same ((short or shorter or local\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4))  
L13 716/1-18.ccls. and L12 and @pd>"20060527"  
Results: 3 hits

L14 (maximum or most or largest or biggest or worst) same ((timing or delay or slack or skew)) same ((long or longer or global\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4))  
L15 716/1-18.ccls. and L14 and @pd>"20060527"  
Results: 14 hits  
L16 L12 and L14  
L17 716/1-18.ccls. and L16 and @pd>"20060527"  
Results: 1 hit

L18 (long or global\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)  
L19 (weight\$5 or cost or fitness or metric) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)  
L20 (delay or time or timing or skew or slack) near5 (minimum\$8 or shortest or smallest or least)  
L21 (delay or time or timing or skew or slack) near5 (maximum\$8 or most or longest or biggest)  
L22 (weight\$5 or cost or fitness or metric) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)  
L23 (slack near3 (positive or negative))  
L24 L18 and L19 and L20 and L21 and L22 and L23 and @pd>"20060527"  
Results: 2 hits

L25 L18 and L19 and L20 and L21 and L22 and L23  
L26 716/1-18.ccls. and L25 and @pd>"20060527"  
Results: 1 hit

US 20060150127 A1 US-PGPUB Zhou; Jun et al. 716/2  
US 7073150 B2 USPAT Teig; Steven et al. 716/12

Date Searched: 5/27/2006

Databases Searched: USPAT, USPGPUB

Plurals: ON

Terms Searched:

L1 ((timing or delay) near3 budget) near5 (minimum or maximum)

L2 slack

L3 1 and 2

Results: 2 hits

L4 1 and 716/16,18.ccls. and @pd>"20060207"

Results: 0 hits

L5 (pld or cpld or fpga or (programmable adj3 (device or array)))

L6 (timing or delay or skew or slack or time) near5 constraint

L7 logic near5 optim\$8

L8 716/16,18.ccls. and 5 and 6 and 7 and @pd>"20060207"

Results: 5 hits

L9 (short or local\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)

L10 (long or global\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)

L11 (delay or time or timing or skew or slack) near5 (minim\$8 or shortest or smallest or least)

L12 (delay or time or timing or skew or slack) near5 (maxim\$8 or most or longest or biggest)

L13 (weigh\$5 or cost or fitness or metric) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)

L14 (slack near3 (positive or negative))

L15 9 and 10 and 11 and 12 and 13 and 14 and @pd>"20060203"

Results: 3 hits

L16 12 and 15

Results: 2 hits

L17 (minimum or least or best or smallest) same ((timing or delay or slack or skew)) same ((short or shorter or local\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4))

L18 (maximum or most or largest or biggest or worst) same ((timing or delay or slack or skew)) same ((long or longer or global\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4))

L19 17 and 18

L20 716/1-18.ccls. and 19 and @pd>20060203

Results: 7 hits

L21 17 and 716/1-18.ccls. and @pd>20060203

Results: 10 hits

L22 716/1-18.ccls. and 18 and @pd>20060203

Results: 20 hits

L23 (short\$3 or "near" or nearby or neighbor\$4 or adjacent or adjoin\$3 or close) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4)

L24 (delay or time or timing or skew or slack) near5 (minim\$8 or shortest or smallest or least)

L25 716/1-18.ccls.

L26 23 and 24 and 25

L27 (long\$3 or far) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4)

L28 (delay or time or timing or skew or slack) near5 (maxim\$8 or most or longest or biggest)

L29 26 and 27 and 28

L30 (weigh\$5 or cost or fitness or metric) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4)

L31 29 and 30

L32 (relax\$6 or over or loose\$2) near10 (delay or time or timing or skew or slack)

L33 31 and 32 and @pd>"20060203"  
Results: 2 hits

US 7013450 B2	USPAT Teig; Steven et al.	716/13
US 7003754 B2	USPAT Teig; Steven et al.	716/14
US 7039845 B2	USPAT Rearick; Jeff et al.	714/738
US 7000206 B2	USPAT Kidd; David A. et al.	716/6
US 20060048086 A1	US-PGPUB Pie; Charles Corey et al.	716/6
US 7003747 B2	USPAT Zhou; Jun et al.	716/6
US 6996512 B2	USPAT Alpert; Charles Jay et al.	703/14
US 20020161947 A1	US-PGPUB Ikeda, Hiroshi et al.	710/38

\*\*\*Interference Search\*\*\*

Database Searched: USPGPUB

Plurals: ON

Terms Searched:

L1 ((short\$3 or "near" or nearby or neighbor\$4 or adjacent or adjoin\$3 or close) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4) and ((delay or time or timing or skew or slack) near5 (minimum\$8 or shortest or smallest or least))) and ((relax\$6 or over or loose\$2) near10 (delay or time or timing or skew or slack))).clm.

Results: 115 hits

L2 1 and 716/1-18.ccls.

Results: 0 hit

L3 (((maximum or most or largest or biggest or worst) near10 (timing or delay or slack or skew)) and ((long or longer or global\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4)))

and ((relax\$6 or over or loose\$2) near10 (delay or time or timing or skew or slack))).clm.

Results: 1 hit

L4 (((maximum or most or largest or biggest or worst) near10 (timing or delay or slack or skew)) and ((long or longer or global\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4))).clm.

L5 ((short\$3 or "near" or nearby or neighbor\$4 or adjacent or adjoin\$3 or close) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4) and ((delay or time or timing or skew or slack) near5 (minimum\$8 or shortest or smallest or least))).clm.

L6 4 and 5

Results: 3 hits

Date Searched: 2/7/2006

Databases Searched: USPAT, USPGPUB

Plurals: ON

Terms Searched:

L1 ((timing or delay) near3 budget) near5 (minimum or maximum)

L2 slack

L3 1 and 2

Results: 2 hits

L4 1 and 716/16,18.ccls.

Results: 2 hits

L5 (pld or cpld or fpga or (programmable adj3 (device or array)))

L6 (timing or delay or skew or slack or time) near5 constraint

L7 logic near5 optim\$8

L8 716/16,18.ccls. and 5 and 6 and 7

Results: 79 hits

US 5541849 A	USPAT Rostoker; Michael D. et al.	716/18
US 20030149954 A1	US-PGPUB McElvain, Kenneth S. et al.	716/18
US 6324678 B1	USPAT Dangelo; Carlos et al.	716/18

Date Searched: 2/3/2006

Databases Searched: USPAT, USPGPUB

Plurals: ON

Terms Searched:

L1 (short\$3 or "near" or nearby or neighbor\$4 or adjacent or adjoin\$3 or close) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4)

L2 (delay or time or timing or skew or slack) near5 (minim\$8 or shortest or smallest or least)

L3 716/1-18.ccls.

L4 1 and 2 and 3

Results: 943 hits

L5 (long\$3 or far) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4)

L6 (delay or time or timing or skew or slack) near5 (maxim\$8 or most or longest or biggest)

L7 4 and 5 and 6

Results: 300 hits

L8 (weigh\$5 or cost or fitness or metric) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4)

L9 7 and 8

Results: 100 hits

L10 (relax\$6 or over or loose\$2) near10 (delay or time or timing or skew or slack)

L11 9 and 10

Results: 55 hits

L12 (short or local\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)

L13 (long or global\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)

L14 (delay or time or timing or skew or slack) near5 (minim\$8 or shortest or smallest or least)

L15 (delay or time or timing or skew or slack) near5 (maxim\$8 or most or longest or biggest)

L16 (weigh\$5 or cost or fitness or metric) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)

L17 (slack near3 (positive or negative))

L18 12 and 13 and 14 and 15 and 16 and 17

Results: 63 hits

L19 3 and 18

Results: 55 hits

L20 (minimum or least or best or smallest) same ((timing or delay or slack or skew)) same ((short or shorter or local\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4))

L21 (maximum or most or largest or biggest or worst) same ((timing or delay or slack or skew)) same ((long or longer or global\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4))

L22 1 and 2

Results: 142 hits

L23 716/1-18.ccls. and 22

Results: 34 hits

L24 20 and 716/1-18.ccls.

Results: 80 hits

L25 716/1-18.ccls. and 21

Results: 195 hits

US 5659484 A	USPAT Bennett; David Wayne et al.	716/16	
US 5521837 A	USPAT Frankle; Jon A. et al.	716/10	
US 5237514 A	USPAT Curtin; James J.	716/10	
US 6763506 B1	USPAT Betz; Vaughn Timothy et al.	716/6	
US 20050251775 A1	US-PGPUB Wood, John	716/10	
US 20050138578 A1	US-PGPUB Alpert, Charles Jay et al.	716/2	
US 20050132318 A1	US-PGPUB Kidd, David A. et al.	716/12	
US 20050039156 A1	US-PGPUB Catthoor, Francky et al.	716/18	
US 20040243964 A1	US-PGPUB McElvain, Kenneth S. et al.	716/12	
US 20030005398 A1	US-PGPUB Cho, Jun-Dong et al.	716/8	
US 6826733 B2	USPAT Hathaway; David J. et al.	716/2	
US 6708139 B2	USPAT Rearick; Jeff et al.	702/185	
US 6480991 B1	USPAT Cho; Jun-Dong et al.	716/8	
US 6286128 B1	USPAT Pileggi; Lawrence et al.	716/18	
US 5475607 A	USPAT Apte; Jitendra et al.	716/10	
US 20050120319 A1	US-PGPUB van Ginneken, Lukas P.P.P.	716/6	
US 20030115566 A1	US-PGPUB Teig, Steven	716/14	
US 20020133799 A1	US-PGPUB Alpert, Charles Jay et al.	716/13	
US 20020116685 A1	US-PGPUB van Ginneken, Lukas P.P.P.	716/1	
US 20010010090 A1	US-PGPUB Boyle, Douglas B. et al.	716/2	
US 6591411 B2	USPAT Alpert; Charles Jay et al.	716/13	
US 6557145 B2	USPAT Boyle; Douglas B. et al.	716/2	
US 6453446 B1	USPAT van Ginneken; Lukas P. P. P.	716/3	
US 6006024 A	USPAT Guruswamy; Mohankumar et al.	716/12	
US 5987086 A	USPAT Raman; Srilata et al.	716/1	
US 20050050497 A1	US-PGPUB Tetelbaum, Alexander	716/6	
US 20050034091 A1	US-PGPUB Harn, Ywh-Pyng	716/6	
US 20040123261 A1	US-PGPUB Alpert, Charles Jay et al.	716/13	
US 6836753 B1	USPAT Silve; Francois	703/2	
US 6408427 B1	USPAT Cong; Jingsheng et al.	716/13	
US 6904585 B2	USPAT Brittain; Mark A. et al.	716/13	

Databases Searched: EPO, JPO, IBM TDB, Derwent

Plurals: ON

Terms Searched:

L1 (short or local\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)  
L2 (long or global\$2) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)  
L3 (delay or time or timing or skew or slack) near5 (minim\$8 or shortest or smallest or least)  
L4 (delay or time or timing or skew or slack) near5 (maxim\$8 or most or longest or biggest)  
L5 (weigh\$5 or cost or fitness or metric) near5 (path or wire or wiring or distance or route or routing or interconnect\$4 or connect\$4 or net)  
L6 (slack near3 (positive or negative))  
L7 1 and 2 and 3 and 4 and 5 and 6

Results: 1 hit

NN9107410

IBM\_TDB

Database Searched: IEE/IEEE Xplore

Terms Searched: ((short or local\*) <near/5> (path or wire or wiring or distance or route or routing or interconnect\* or connect\* or net)) and ((long or global\*) <near/5> (path or wire or wiring or distance or route or routing or interconnect\* or

connect\* or net)) and((delay or time or timing or skew or slack) <near/5> (minim\* or shortest or smallest or least)) and ((delay or time or timing or skew or slack) <near/5> (maxim\$8 or most or longest or biggest)) and ((weigh\$5 or cost or fitness or metric) <near/5> (path or wire or wiring or distance or route or routing or interconnect\* or connect\* or net)) and(slack <near/3> (positive or negative))

Results: Your search matched **0** documents

Terms Searched: ((short or local\*) <near/5> (path or wire or wiring or distance or route or routing or interconnect\* or connect\* or net)) and ((long or global\*) <near/5> (path or wire or wiring or distance or route or routing or interconnect\* or connect\* or net)) and(weigh\$5 or cost or fitness or metric)and (slack <near/3> (positive or negative))

Results: Your search matched **0** documents

Terms Searched: ((short or local\*) <near/5> (path or wire or wiring or distance or route or routing or interconnect\* or connect\* or net)) and ((long or global\*) <near/5> (path or wire or wiring or distance or route or routing or interconnect\* or connect\* or net)) and((delay or time or timing or skew or slack) <near/5> (minim\* or shortest or smallest or least)) and ((delay or time or timing or skew or slack) <near/5> (maxim\$8 or most or longest or biggest)) and ((weigh\$5 or cost or fitness or metric) <near/5> (path or wire or wiring or distance or route or routing or interconnect\* or connect\* or net))

Results: Your search matched **1** of **1310010** documents